CREATIVE BIOMART®
Assay Kit

# pCREB (Human) Transcription Factor Activity Assay Kit

## Product Information

**Cat**

Kit-2295

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**Product Overview**

A number of hormones and growth factors have been shown to stimulate target cells via second messenger pathways that in turn regulate the specific nuclear factors. In response to activation of guanine-nucleotide-binding (G)-protein-coupled receptors, the classic intracellular second messenger cyclic AMP accumulates and induces cellular adaption through cAMP response elements (CRE) locating at different gene promoters and transcription factor: CRE binding protein (CREB). In the basal state, the cAMP-dependent protein kinase (PKA) stays in the cytoplasm as an inactive heterotetramer of paired regulatory and catalytic subunits. Induction of cAMP releases the C subunits of PKA into the nucleus and results in phosphorylation of CREB at serine residue 133. This modification enhances the binding of CREB on CRE sequence and promotes recruitment of the transcriptional co-activator CBP and p300 to form a complex which triggers transcription of a number of genes involving different physiologic processes, including intermediary metabolism, cellular proliferation, and neuronal signaling. The pCREB Transcription Factor-Activity Assay kit is a non-radioactive transcription factor assay with an ELISA format. It offers an easy, speedy, sensitive and high-throughput method to detect the activation of transcription factors.

**Applications**

Detecting the CREB in human nuclear extraction and whole lysates

**Storage**

-20°C

**Shipping**

Gel Pack

**Size**

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# pCREB (Human) Transcription Factor Activity Assay Kit

100 assays

**Kit Components**

Microplate; DNA Binding Buffer (5X); Positive Control; Specific Competitor DNA Probe; Non-specific Competitor DNA Probe; Assay Reagent; DTT (300 mM); Wash Buffer Concentrate (20X); Primary Antibody; HRP-conjugated Secondary Antibody; Antibody Diluent Buffer; TMB One-Step Substrate Reagent; Stop Solution

**Target Species**

Human

**Detection method** Absorbance (450 nm)

**Features & Benefits**

A non-radioactive transcription factor assay with an ELISA format.
An easy, speedy, sensitive and high-throughput method to detect the activation of transcription factors.

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